IN THE UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF ILLINOIS
EASTERN DIVISION

GREGORY H. SACHS, an individual; and CHUBB NATIONAL INSURANCE COMPANY, as subrogee of GREGORY H. SACHS Plaintiffs v. REEF AQUARIA DESIGN, INC., a Florida corporation; and JEFFREY TURNER, an individual; Defendants	Case No. 06 C 1119 Judge Ronald Guzman Magistrate Judge Arlander Keys
REEF AQUARIA DESIGN, INC. and JEFFREY TURNER, Third-Party Plaintiffs v. D&D AQUARIUM SOLUTIONS, LTD. and DAVID SAXBY, an individual Third-Party Defendants	

MEMORANDUM OPINION AND ORDER

The current motions before this Court all stem from a dispute over the construction of a 2,800 gallon custom all-glass aquarium located in the personal residence of the plaintiff.

Gregory Sachs ("Plaintiff") brought suit against defendants Reef Aquaria Design, Inc. ("RAD") and Jeffrey Turner ("Mr. Turner") (collectively "Defendants"), alleging that after RAD completed the construction of the aquarium, there remained certain defects to its design, which as a result, caused the entire 2,800 gallons of water to leak out and Plaintiff to sustain substantial damages. Defendants, on the other hand, claim that D&D Aquarium Solutions, Ltd., and David Saxby (collectively "D&D") caused the leakage when they conducted repairs to the aquarium at Plaintiff's request. The Court's task today is simply to decide the parties' motions in limine.

FACTUAL BACKGROUND

In February 2004, Plaintiff Gregory T. Sachs, contracted with Jeffrey Turner of RAD, to design and install a custom glass 2,800 gallon aquarium system in Plaintiff's home. In about April of 2004, Reef completed the construction of the aquarium and it was subsequently water-tested for leaks in June 2004. Plaintiff alleges that at the beginning of December 2004, he observed several defects in the aquarium and notified the Defendants. According to Plaintiff, he and his counsel made several attempts to contact Mr. Turner and advise him of the aquarium's defects; however, Mr. Turner failed to respond. According to Plaintiff, in order to prevent any additional damage, Plaintiff hired Klein and Hoffman, Inc. ("Klein"), a structural engineering firm, to

examine the aquarium and provide recommendations on the best course of action to restore the aquarium. On January 10, 2005, Plaintiff's counsel sent a letter to RAD, addressed to the attention of Mr. Turner, enclosing the Klein report and inviting RAD to arrange for its own examiners to inspect the aquarium. By January 21, 2005, RAD still failed to express any interest in inspecting the aquarium.

Later that month, Plaintiff contacted Mr. Turner to discuss his intentions to drain the tank and install additional bracing, as recommended by Klein. Mr. Turner contended that draining the aquarium was unnecessary and that the tank only required additional bracing. Consequently, Plaintiff hired David Saxby of D&D, an aquarium design professional, to conduct a review of the aquarium system and structure and to provide a recommendation for remedying the structural integrity of the aquarium. D&D's recommendations were consistent with those given by Klein. After notifying Mr. Turner of D&D's recommendation, he still did not agree with the proposed remedy of Plaintiff's experts; and therefore, was unwilling to perform the recommendations of Klein and D&D. Subsequently, Plaintiff hired D&D and it performed remedial measures to the aquarium's tank structure and filtration systems.

In March 2005, D&D drained the aquarium and implemented remedial measures. Approximately two hours after the tank was

refilled, the entire 2,800 gallons of water drained from the tank into Plaintiff's residence. A crack in the bottom of the tank was discovered as the source of the leak. Consequently, Plaintiff suffered damages to his home and property as a result of the leakage. Plaintiff's insurance company, Chubb National Insurance Company, hired its own expert, Exponent Failure Analysis Associates ("Exponent"), to investigate the failure of the aquarium. Exponent, represented by Ronald Huet and Dennis McCann, has also offered its conclusions as to the cause of the failure of the aquarium. So too has Wiss, Janey and Elstner Associates, Inc. ("WJE"), retained by Plaintiff.

On March 1, 2006, Plaintiff filed a complaint against Defendants, alleging that structural defects in the construction of the aquarium caused the water to leak out of the tank, ultimately causing damage to Plaintiff's property. In opposition, Defendants joined D&D as third-party defendants, arguing that they did not cause the leak. They maintain that D&D is responsible, because it damaged the bottom of the aquarium tank during it's performance of certain alterations to the tank's structure, causing the subsequent leakage. On June 27, 2007, Judge Guzman, the district judge to whom the case is assigned, referred the case to this Court to resolve the following pre-trial issues. Currently, before the court are several motions in limine, by both Plaintiff and Defendants, to preclude the

testimony and opinions of certain expert witnesses.

DISCUSSION

District courts have the power to exclude evidence in limine as part of their inherent authority to manage trials. *See Pease v. Production Workers of Chicago and Vicinity Local 707*, No. 02 C 6756, 2003 WL 22012678, at *3 (N.D.Ill. Aug. 25, 2003)(citing *Farley v. Miller Fluid Power Corp.*, No. 94 C 2273, 1997 WL 757863, at *1 (N.D.Ill. Nov. 24, 1997); *Luce v. United States*, 469 U.S. 38, 41 (1984)). However, motions in limine should be granted only if the evidence is clearly not admissible for any purpose. *See Hawthorne Partners v. AT & T Technologies, Inc.*, 831 F.Supp. 1398, 1400 (N.D.Ill. 1993). It should be noted that "[d]enial of a motion in limine does not necessarily mean that all evidence contemplated by the motion will be admitted at trial." *Farley*, 1997 WL 757863, at *1. Rather, "[d]enial merely means that without the context of trial, the court is unable to determine whether the evidence in question should be excluded. The court will entertain objections on individual proffers as they arise at trial, even though the proffer falls within the scope of a denied motion in limine." *Id.*

Rule 702 of the Federal Rules of Evidence and the principles announced in *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579 (1993) and *Kumho Tire Co. v. Carmichael*, 526 U.S. 137 (1999), govern the admissibility of expert testimony. Rule 702

provides that an expert witness may testify regarding scientific, technical, or other specialized knowledge that will assist the trier of fact to understand evidence, if: 1) the testimony is based upon sufficient facts or data, 2) the testimony is based on reliable principles and methods, and 3) the expert properly applied those principles and methods to the facts of the case. FED.R.EVID. Rule 703 governs the basis of expert testimony and allows otherwise inadmissible evidence to the jury, provided it is the type reasonably relied upon by experts in the particular field when forming opinions or inference upon the subject.

Under *Daubert* and *Kumho*, this Court is required to act as "gatekeeper," admitting only that expert testimony that passes a "flexible" test, which involves the consideration of a variety of factors intended to gauge the reliability and relevance of the evidence. In order for expert testimony to be admitted, the movant must establish that the expert testimony is both reliable and would assist the trier of fact in understanding the evidence or determining a fact at issue in the case. *Bullock v. Sheahan*, No. 05 C 1051, 2007 WL 2461657, at *1 (N.D.Ill. Aug. 28, 2007). However, "[t]he rejection of expert testimony is the exception rather than the rule, and the trial court's role as gatekeeper is not intended to serve as a replacement for the adversary system." *Id* (quoting *Spearman Idus. v. St. Paul Fire & Marine Ins.*, 128 F.Supp.2d 1148, 1150 (N.D.Ill. 2001)). The court must also keep

in mind that the question of whether the expert is credible or whether the theories being applied by the expert are correct, is a "factual one that is left for the jury to determine after opposing counsel has been provided the opportunity to cross-examine the expert regarding his conclusions and the facts on which they are based." *Smith v. Ford Motor Co.*, 215 F.3d 713, 719 (7th Cir. 2005). Furthermore, "[i]t is not the trial court's role to decide whether an expert's opinion is correct. The trial court is limited to determining whether expert testimony is pertinent to an issue in the case and whether the methodology underlying that testimony is sound." *Id.* To determine whether expert testimony is relevant, the Court must ask whether, "specialized knowledge will assist the trier of fact to understand the evidence or to determine a fact in issue." FED. R. EVID. 702; *See also Smith*, 215 F.3d at 718.

Here, each side has filed motions to exclude expert testimony. Plaintiff wishes to exclude the testimony of Defendants' expert witnesses: 1) Harry R. Allen, 2) Dr. Sheldon Mostovoy and 3) Jeffrey A. Turner. Defendants seek to exclude the testimony and opinions of Plaintiff's expert witness 1)James Hauck and the expert witnesses of Chubb National Insurance Company, 2) Ronald Huet and 3) Dennis McCann. The Court will consider each motion in turn.

I. Plaintiff's Motions in Limine

A. Motion in limine #1

Plaintiff's motion in limine seeks to bar testimony and opinions by Defendants' expert, Harry R. Allen, a licensed structural engineer, under Federal Rules of Evidence 702 and 703. Plaintiff argues that Mr. Allen's opinions lack a "factual basis" and his "inferences are not based on any principles of structural engineering." Pl.'s Mot. at 3. Defendants counter that Mr. Allen's testimony is admissible and that cross examination and careful instruction on the burden of proof are the appropriate measures for attacking Mr. Allen's testimony. The Court agrees with Defendants and denies Plaintiff's motion.

In his second report, Mr. Allen includes his opinions of what activities likely caused the bottom glass in the aquarium to crack. Mr. Allen concludes that a normal load of water, sand and rocks in the aquarium did not cause the failure of Glass Panel B, but rather "something happened" while D&D worked in the tank. Allen Dep. at 119-20; *See also*, Allen Rep. at 3 (attached as Exhibit A to Defendant's Response to Plaintiff's Motion In Limine). The basis of Mr. Allen's conclusion is that "Glass Panel D is larger, has a greater span, and has a hole closer to the center of the panel"; thus, Mr. Allen concludes, " ... under the same loads, Glass Panel D would be expected to fail before Glass Panel B, and it did not." *Id.* at 4. He opines that a rock

that was not carefully placed in the glass or a person exerting a dynamic load upon entering or working in the tank in close proximity to the capped pipe where the cracks originate from, could create enough impact to initiate the crack." *Id.* In other words, "if someone dropped the rock" and depending on the weight of the rock and the height from which the rock was dropped, it could have caused the glass to crack. Allan Dep. at 125-26. He further explained, that the "damage could have been concealed by the sealant and gasket or may not have been visible to the naked eye," but when the water in the tank was refilled by D&D, the stress could have caused the glass to crack. Allen Rep. at 3. Mr. Allen further opined that, when rocks were reinstalled by D&D,

> [t]he concentrated loads from these rocks were not distributed out along the bottom of the aquarium as much as in the original design by RAD. Thus, it is likely that the concentrated loads from these rocks were redistributed in such a fashion that the flexural tensile stress was increased at the location of the failure.

Id. Mr. Allen concluded, "the failure of the bottom glass panel of the aquarium can likely be attributed to work performed on the aquarium after it was drained, since the failure occurred shortly after the aquarium was refilled with water" by D&D, and because this all occurred after the aquarium had lasted eight months under RAD's initial construction. *Id.*

In opposition to Plaintiff's motion in limine, Defendants

argue that Mr. Allen's testimony will be useful in educating the jury regarding the principles of dynamics as they relate to work activities performed on the aquarium by D&D. *See* Defendants' Response to Plaintiff's Motion in Limine to Strike and Preclude Testimony and Opinions by Defendants' Expert, Harry R. Allen at 4. Defendants further assert that Mr. Allen's testimony offers dynamic load analysis that should have been considered by WJE and Exponent, but was not. Defendants contend that Mr. Allen "must be permitted to testify as to his view of the known and inferred activities which he calculated would have exerted impact forces exceeding the rupture stress predicted by Exponent." *Id.* at 9.

Plaintiff contends that Mr. Allen has no factual basis for assuming that "something happened" when D&D worked in the aquarium; rather, Mr. Allen's opinions are based on mere speculation; and therefore, are not helpful to the jury. For example, at his deposition, Mr. Allen explained that the most probable ways a dynamic load exerted by a human, strong enough to crack the glass, would be either a person "jump[ing] down off the last rung of a ladder" or if a person climbed "over the tank and then just dropped down to the glass bottom." Allen Dep. at 134. Plaintiff claims that there is no factual evidence that anyone jumped off or fell into the tank as Mr. Allen describes, and he fails to provide any scientific basis to support the conclusion that D&D's activities were sufficient to crack the glass; which

Plaintiff contends, renders Mr. Allen's analysis incomplete. *See, e.g.*, Pl.'s Reply at 4 ("Mr. Allen does not calculate the force that would be exerted by someone simply stepping into the tank from the step ladder, and does not know whether that force would have exceeded the unknown load capacity of the glass.") Plaintiff also takes issue with certain calculations performed by Mr. Allen. Plaintiff contends that "Mr. Allen ... erroneously claims that a man weighing 200 pounds dropped two feet would exceed the breaking point of glass because the ***force*** exerted would be 900 psi, which Mr. Allen mistakenly compares to the 600 pound ***weight*** needed to exceed the maximum allowable stress." Pl.'s Reply at 9. Plaintiff also draws attention to the "conservative" estimate used in Mr. Allen's calculation. Plaintiff claims that if Mr. Allen altered the numbers used in his estimate, he would have yielded results supporting the conclusion that D&D's actions did not cause the glass to crack.

The issue of what caused the glass to crack is at the center of this case, because any finding of liability rests on the answer to that question. Therefore, it is obvious that any expert testimony shedding light on that issue will be helpful to the trier of fact in deciding the ultimate issue of this case. Accordingly, this Court's second inquiry remains whether Mr. Allen's methodology underlying his testimony is sound.

Plaintiff does not challenge Mr. Allen's qualifications as

an expert in structural engineering, rather his contention is limited to Mr. Allen's theories and ultimate conclusions.

While it is true that Defendants do not offer any physical proof that someone jumped into the tank, or jumped off the last rung of the ladder while inside the aquarium, or dropped a rock inside the tank, that does not automatically render Mr. Allen's testimony inadmissible. "*Daubert* analysis does not preclude testimony merely because it may be based upon an assumption;" however, "the supporting assumption must be sufficiently grounded in sound methodology, and reasoning to allow the conclusion it supports to clear the reliability hurdle." *In re TMI Litigation*, 193 F.3d 613, 677 (3d Cir. 1999).

After reviewing Mr. Allen's report and the parties' briefs, the Court finds that his opinions are based on sufficient factual data. For example, Mr. Allen took into account the force exerted by D&D entering and exiting the aquarium using a step ladder placed in the aquarium, carrying rocks in the tank, gluing rock directly to the glass bottom and then stacking the rock in pillars, and up to four workers being in the tank at a time, along with the temporal association between when D&D completed it's work in the tank and the subsequent leakage. With this factual evidence, Mr. Allen opines that it is likely that a rock was dropped in the tank or that someone jumped off the last rung of the ladder, exerting a large enough dynamic force to crack the

glass, rather than the structural failure of RAD's original design. His opinion is supported by calculations of the force required to break the glass and likely activities powerful enough to exert that force. For example, Mr. Allen opined,

> assuming the period of deformation to be 0.1 seconds, a 50 lb. rock dropped from a 4 ft. height would impart a 300 lb. force on the bottom panel of glass, a 200 lb. person exerting a dynamic force from a 2 ft. height would impart approximately a 900 lb. force on the bottom glass, and a 175 lb. person exerting a dynamic force from a 4 ft. height would impart approximately a 1,050 lb force on the bottom glass.

Allen Rep. at 3. In his opinion, it is physically possible and likely, that one of the above activities took place. Although Plaintiff and his experts might disagree with Mr. Allen's theory that D&D did something while in the tank to cause it to crack, this is a factual determination that only the trier of fact may decide. *Smith*, 215 F.3d at 719. And the Supreme Court has held, cross examination is the appropriate method for attacking such shortcomings in expert opinions. *Daubert*, 509 U.S. at 596; *See also Bullock*, 2007 WL 2461657, at *1 (N.D.Ill. Aug. 28, 2007); *Smith*, 215 F.3d at 719.

Again, no one present while D&D performed work on the aquarium testified that they witnessed anyone jump into the tank or jump off of the last rung of a ladder while in the tank; however, Mr. Allen is not testifying about the credibility of these witnesses as Plaintiff argues, when he suggests these

things likely occurred. Rather, it is his opinion that at least one of the above events occurred and it is then up to the trier of fact to assess the evidence and the credibility of the witnesses and make that determination of fact. It is certainly conceivable that a jury could find it more probable that D&D exerted a dynamic load sufficient to break the glass, as opposed to the original design failing after several months and within a few hours of D&D working in the tank. Therefore, Mr. Allen's testimony is helpful to the jury in making that determination. Although the Plaintiff argues "Mr. Allen is only telling the jury what result to reach," if Mr. Allen's testimony were to be excluded here, this Court would be guilty of "usurp[ing] the jury's function." Pl.'s Mot. at 3. The court is not to replace the adversary system, and the most appropriate forum for such challenges is at trial, during cross examination. See *Smith* 215 F.3d at 719; *Bullock*, 2007 WL 2461657, at *1 (N.D.Ill. Aug. 28, 2007). Therefore, Plaintiff's motion to exclude the opinions and testimony of Mr. Allen is denied.

B. Motion in limine #2

Plaintiff's second motion in limine is similar to his first. He seeks to bar the testimony and opinions of Defendants' expert Dr. Sheldon Mostovoy ("Dr. Mostovoy"). Plaintiff claims that there is no factual basis for any of Dr. Mostovoy's opinions and that they are nothing more than mere speculation and will serve

only to confuse and mislead the jury. Hence Plaintiff argues, Dr. Mostovoy's opinions and testimony must be precluded under Rules 702 and 703.

Defendants, on the contrary, argues that Dr. Mostovoy's testimony is relevant because it incorporates his critique of the opinions expressed by WJE and Exponent, Plaintiff's experts, regarding the cause of the crack, which is acceptable expert testimony. In addition to their critique of Plaintiff's proffered expert opinions, Defendants contend that Dr. Mostovoy also applies scientific principles and methodology which are relevant to determining the cause of the failure of the bottom panel. Accordingly, Defendants maintain that Dr. Mostovoy's proposed testimony far exceeds the requirements of 702 and 703.

Dr. Mostovoy's opinions can be summarized as follows: 1) considering the stresses and stress intensity factor (SIF) and the value of the crack length, the possibility of long term crack growth under "static fatigue" is rendered highly unlikely; 2) the value of SIF at short cracks show that the most likely cause of the fracture was the introduction of a small crack from dynamic loads applied during the modification and the reintroduction of rocks in the tank; 3) failure of the glass panel occurred by "static fatigue" at a high rate dictated by the rate equation after the aquarium was redesigned and reconfigured by D&D in March of 2005 and within hours after the water was re-introduced

into the tank. *See* Mostovoy Rep. at 2. In his report, Dr. Mostovoy also disagreed with some of the analysis provided in the reports completed by WJE and Exponent. For example, in his report Dr. Mostovoy draws attention to WJE and Exponent's use of design requirements of window glass in their analysis, which Dr. Mostovoy found was inapplicable to aquariums.

Plaintiff asks this court to exclude Dr. Mostovoy's testimony for failing to comply with Rules 702 and 703. Plaintiff first argues that Dr. Mostovoy's criticism of WJE and Exponent's failure to introduce cracks into their analysis is flawed, because Dr. Mostovoy has no basis for picking a crack of any particular length, which renders his opinion unreliable. As Plaintiff explains, Dr. Mostovoy does not know how big the crack at the edge of the hole in the glass panel was when it was first formed. Plaintiff takes issue with the number Dr. Mostovoy used to demonstrate the length of the initial crack and suggests that Dr. Mostovoy chose a crack of 0.5 mm long, because that crack would have grown slowly over one to ten hours before rapid propagation. In other words, Plaintiff contends that Dr. Mostovoy started his analysis by arbitrarily choosing 0.5 mm as the initial length of the crack, because he knew that, by imputing that particular number, the calculations would represent that the crack grew quickly within hours, prompting him to speculate that "something happened" while D&D was in the

aquarium. Plaintiff also finds Dr. Mostovoy choice of 0.5 mm arbitrary, because Dr. Mostovoy agrees that it is equally likely that the crack was of a different size, that would have grown slowly over months.

Plaintiff does not dispute Dr. Mostovoy's qualifications as an expert in material science, so once again, this Court must start by asking whether Dr. Mostovoy's testimony is pertinent to an issue in the case and determine whether the methodology underlying his testimony is sound. *Smith*, 215 F.3d at 719. Like Mr. Allen, Dr. Mostovoy offers opinion testimony pertaining to what caused the bottom panel of the aquarium to crack. Again, this kind of testimony is certainly pertinent to the issue of liability in this case; hence, the Court now turns to the soundness of Dr. Mostovoy's testimony.

In Dr. Mostovoy's report, dated April 13, 2007, he offers some criticism against Exponent for not conducting tests with a model that allows the introduction of cracks. Dr. Mostovoy's report explains that his analysis is based on the use of a 3D model software that allows the introduction of cracks into the model. He used the 3D model, along with data from published literature concerning the response of glass to "static fatigue" in water to formulate his opinions. During his deposition, Dr. Mostovoy did admit that there is no way of knowing the initial size of the crack, but he stated that the analysis he did using

the 3D model revealed the average stress intensity factors corresponding with various crack lengths. Mostovoy Dep. at 65. The software, together with information from the published literature, enabled Dr. Mostovoy to rule out particular crack lengths and come to his opinion as to what likely took place to cause the glass to crack. In Dr. Mostovoy's opinion, failing to introduce cracks in their analysis, rendered Plaintiff's expert analysis incomplete, because they offered no calculations of what the SIF would be around the crack.

Here, Plaintiff merely challenges whether the use of the model is appropriate, because the initial crack size is unknown. However, once again, the Court must defer this decision to the jury. Even if this were not the case and Plaintiff really challenges Dr. Mostovoy's methodology, the Court finds it sound. Dr. Mostovoy used the 3D model to find the SIF at various crack lengths. This allowed him to hypothesize as to what likely activities could have caused the glass to break.

Plaintiff also argues that Defendants did not meet their burden of proving that Dr. Mostovoy's computer model is reliable and accurate. Specifically, Plaintiff contends that Dr. Mostovoy's model included a crack that went all the way through the thickness of the glass panel, as opposed to being only on the bottom of the panel. Plaintiff argues that Defendants offer no evidence that the model accurately reflects the situation

involving a crack that was only on the bottom of the panel. Moreover, Plaintiff contends that the model relies on the same speculation concerning the initial length of the crack, the magnitude associated with activities conducted by D&D, and the presence of room temperature water in the crack. Plaintiff further argues that it is plain speculation that there was water in the crack, because there is no factual evidence to support that conclusion. Additionally, Plaintiff argues that, Dr. Mostovoy does not know the temperature of the water and how that would affect the crack's growth.

While Plaintiff is correct that Defendants bare the burden of showing that the opinions of their experts comply with Rule 702, Plaintiff's contention is not with the reliability of the model, as he claims. Rather, he takes issue with the way in which the model was used or its usefulness to this case and not the actual reliability of the software's capabilities. Plaintiff contends that Dr. Mostovoy's computer model fails to depict the situation where the crack was on the bottom of the panel, or at least that Defendants do not offer evidence that show that this model accurately or reliably depicts the crack only being on the bottom of the panel. In other words, Plaintiff argues that Dr. Mostovoy's analysis is incomplete, because it did not consider the crack being only on one side of the glass panel. Plaintiff's objection represents the heart of the adversary system and is

best left for cross examination. Litigants are to highlight weaknesses in their opponent's evidence at trial for the trier of fact to consider, and it is not the function of this Court to judge the reliability of evidence.

Additionally, Plaintiff argues that all of Dr. Mostovoy's opinions are not relevant if there was no water present in the crack. Plaintiff contends that Defendant does not possess evidence of water being present in the crack, but only argues that, since water was on top of the glass panel, there could have been water in the crack, but fails to explain how it is possible. The question of whether water existed in the crack is clearly a factual determination for the fact finder.

Plaintiff also seeks to exclude Dr. Mostovoy's testimony regarding possible criticism of American Society for Testing and Materials (ASTM) Standard E1300-04, to be presented at trial under Federal Rules of Civil Procedure 37(c)(1), for failure to comply with FRCP 26(a)(2)(B).[1] Plaintiff claims that this criticism would be in violation of Federal Rule of Civil Procedure 26(a)(2)(B). Plaintiff argues that Defendants did not disclose a complete statement of all opinions to be expressed by Dr. Mostovoy and the basis and reasons, when Dr. Mostovoy did not

[1] According to Plaintiff's expert, the ASTM publishes standards for both the testing of and the creation of different materials. One of the standards published by ASTM is the standards for glass. Hauck Dep. at 41.

refer to the ASTM Standard in his report. Essentially, Plaintiff argues that Dr. Mostovoy not only did not refer to the ASTM Standard in his report, but he also had not reviewed the Standard in preparing it. Plaintiff contends that Dr. Mostovoy "reasonably could be expected to testify at trial," to his opinions regarding the ASTM Standard. Pl.'s Reply at 7.

Rule 26(a)(2)(B), in pertinent part, requires witnesses retained to give expert testimony, to provide a written report containing the opinions to be expressed and the basis for those opinions. FED.R.CIV.P. Rule 37(c)(1) requires that testimony not in compliance with Rule 26(a)(2)(B) be excluded, unless such noncompliance was with substantial justification or harmless. *Id.* This Court finds that Defendants have met their burden under Rule 26(a)(2)(B).

On page 2 of Dr. Mostovoy's report, the beginning of the first full paragraph reads: "In the reports by WJE and Exponent ...." In this paragraph, Dr. Mostovoy refers to the reports written by Plaintiff's experts and offers criticism and his opinion. In this paragraph he states, "[o]ne of the statements made in the report was that glass design could be based on a 'rule of thumb' used for windows in building construction." Mostovoy Rep. at 2. While he does not actually use the term "ASTM Standard E1300-04" in his report, he does say that "[t]he design requirements for window glass (e.g., wind loads and

thermal stresses) are not applicable to an aquarium since loading is not the same." *Id.* It is clear from this language that Dr. Mostovoy was referring to the ASTM standard. Dr. Mostovoy also provides some explanation as to why, in his opinion, standards for window glass are not applicable here. *See Id* ("The fracture strength of glass averages between 7 and 15 ksi ... [which] is about 10 times larger than the loading in the tank as calculated by Exponent.") An expert's report has previously been found to be in violation of Rule 26 (a)(2)(B) when it was based on assertions and no reasoning to support such opinions. *See Loeffel Steel Products, Inc. v. Delta Brands, Inc.*, 387 F.Supp.2d 794 (N.D. Ill. 2005). Dr. Mostovoy's opinions are not empty assertions, but rather are supported by some reasoning that is helpful in understanding his critique of Plaintiff's experts; hence, Defendants are in compliance with Rule 26(a)(2)(B).

Lastly, Plaintiff argues that Dr. Mostovoy is guilty of faulty reasoning, because there is no circumstantial evidence to support his opinion that something happened while D&D repaired the aquarium. However, as this Court has already determined, there is a factual basis to support Dr. Mostovoy's conclusion, mainly D&D's activities while in the aquarium (e.g. placing a ladder in the aquarium to enter and exit), coupled the temporal relationship between the actual leak and when D&D completed it's repair of the aquarium. Consequently, Plaintiff's second motion

in limine is denied.

C. Plaintiff's motion in limine #3

In Plaintiff's final motion in limine, he seeks to bar Jeffrey A. Turner, one of the defendants in this case, from offering certain opinions pursuant to 37(c)(1) of the Federal Rules of Civil Procedure, for failure to comply with Federal Rule of Civil Procedure 26(a)(2)(A).[2] Specifically, Plaintiff seeks to bar Mr. Turner "from offering any opinions concerning the existence of an alleged 'custom and practice' in the aquarium design and construction field and whether Defendants complied with that 'custom and practice'." Pl.'s Mot. at 2. Plaintiff argues that this is expert testimony and that Defendants failed to identify or disclose an expert in the aquarium design and construction field, and additionally, have not identified Mr. Turner as one in violation of Rule 26(a)(2)(A).

Defendants stipulate that Mr. Turner can testify that the usage of 3/4 inch annealed glass for the bottom of an aquarium with a 48 inch water column, as was used in Plaintiff's aquarium, is an accepted custom and practice in the field of building glass aquaria, because it is lay opinion testimony under Rule 701.

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[2] Although Plaintiff in his original motion argued that Defendants failed to comply with Federal Rule of Civil Procedure 26(a)(2)(B), in his reply in support of his motion, he did not mention the rule and failed to offer any arguments in support. Therefore, this opinion only considers Plaintiff's argument under Rule 26(a)(2)(A).

Defendants argue that, because there are no formal written codes or standards, "it is a fact within the personal knowledge of Mr. Turner that the usage of 3/4 inch glass for an aquarium bottom is ... the customary practice formed by the experience of aquarium builders." Defendants' Response to Plaintiff's Motion in Limine to Strike and Preclude Expert Opinions of Jeffrey A. Turner at 2.

As the Court explained in Plaintiff's prior motion, under Rule 37(c)(1), a party without "substantial justification" who fails to disclose information required by Rule 26(a), is not permitted to use such evidence at trial, at a hearing, or on a motion, unless the court finds that such failure was "harmless." FED.R.CIV.P. Rule 26(a)(2) governs the disclosure of expert testimony. Rule 26(a)(2)(A) requires a party to "disclose to other parties the identity of any person who may be used at trial to present evidence under Rules 702, 703, or 705 of the Federal Rules of Evidence." *Id.* Defendants admit they did not disclose that Mr. Turner would be presenting evidence under 702, because they argue exactly the opposite--Mr. Turner's testimony falls under 701. In deciding this motion, this Court must first consider whether Mr. Turner's proposed testimony falls within Federal Rules of Evidence 701 or 702; and thus, under Rule 26(a)(2)(A). Secondly, if Mr. Turner's testimony is within Rule 702, the court must decide whether Defendants have a "substantial justification" or whether the nondisclosure is "harmless."

Rule 701 governs the admissibility of opinion testimony by lay witnesses. Rule 701 restricts lay witnesses to testifying only to opinions which are "(a) rationally based on the perception of the witness, and (b) helpful to a clear understanding of the witness' testimony or the determination of a fact in issue, and (c) not based on scientific, technical, or other specialized knowledge within the scope of Rule 702." Rule 702 refers to the testimony of experts, which provides that an expert witness may testify regarding scientific, technical, or other specialized knowledge that will assist the trier of fact to understand evidence. *See* Discussion, *supra*, at 5.

The Court now turns to Mr. Turner's proffered testimony. Mr. Turner seeks to testify that the 3/4 inch glass on the bottom of Plaintiff's aquarium is the accepted practice in the field of aquaria design and construction. According to Defendants, this testimony arises from Mr. Turner's personal knowledge, and is based on his observations and inferences from, among others, his personal experience in building glass aquaria, attendance at seminars involving the design and construction of aquaria and his work with other individuals who have also built large aquarium tanks. The Court disagrees with Defendants' characterization of Mr. Turner's proposed testimony and finds that the above falls under 702.

The difference between an expert witness and lay witness is

that the "former can offer an opinion, while the latter is confined to testifying from personal knowledge." *United States v. Williams*, 81 F.3d 1434, 1442 (7th Cir. 1996). The test used to determine whether a witness is an expert or an ordinary witness is "whether the witness has 'specialized knowledge that the lay person cannot be expected to possess' and reasonably applies that knowledge to the relevant facts." *Chao v. Gunite Corporation*, 442 F.3d 550, 559 (7th Cir. 2006) (quoting *United States v. Conn*, 297 F.3d 548, 554-55 (7th Cir. 2002)).

In medical malpractice and negligence suits, courts within the Seventh Circuit have previously held that treating physicians' testimony regarding general standards of care is "classic" expert testimony. *See Patel v. Gayes*, 984 F.2d 214 (7th Cir. 1993); Zarecki v. *Nat'l Railroad Passenger Corp.*, 914 F.Supp. 1566 (N.D.Ill. 1996); *Harms v. Laboratory Corporation of America*, 155 F.Supp.2d 891 (N.D.Ill. 2001). For example, in a negligence and res ipsa loquitur action against a testing laboratory for giving the plaintiff, Kourtney Harms, false results, Ms. Harms sought to bar the laboratory's operational manager, Mr. Chapman, from testifying as to the issue of standard of care. The court had to decided whether Mr. Chapman "acquired his opinions about the correct standard of care directly through his involvement in the testing of [Ms. Harms's] blood or during his investigation of that testing." *Harms*, 155 F.Supp.2d at 903.

The court found that the general standards of care in the industry would come from Mr. Chapman's professional knowledge. The *Harms* court held that this was "classic expert testimony," and that the defendants had to specifically identify Mr. Chapman as an expert witness. *Id.* Thus, the court precluded him from "offering expert opinions on the industry or general standards of care." *Id.*

Similar to *Harms*, Defendants here wish to offer Mr. Turner's opinion regarding the "accepted custom and practice in the field of building glass aquaria." Defs.' Resp. at 2. Mr. Turner did not learn of general accepted practice of building glass aquaria from his involvement with building Plaintiff's aquarium. Rather, the basis of Mr. Turner's opinion ultimately amounts to his experience in building glass aquaria, running a company that builds glass aquaria, his attendance at seminars, acting as a consultant for a large aquarium manufacturer and working with other individuals who have built large tanks. *Id.* The basis of Mr. Turner's opinion is clearly from his professional knowledge. Furthermore, this information would fall under "specialized knowledge," because a lay person cannot be expected to possess and reasonably apply knowledge of building glass aquaria to the relevant facts. This is expert testimony, and Defendants' frequent categorization of Mr. Turner's testimony as "personal knowledge" does not alter this reality. Thus, in order to have

Mr. Turner opine on general industry practice or standards, Defendants had to specifically identify Mr. Turner as an expert witness, who would testify under 702, 703, or 705 of the Federal Rules of Evidence.

Defendants also argue that Ed Steinman ("Mr. Steinman"), a glass supplier who has worked with Mr. Turner and others in the industry, confirms that using a 3/4 inch glass bottom for aquariums around the same height is standard with many of the other aquarium builders. Defendants contend that this is further evidence of Mr. Turner's personal knowledge. However, Mr. Steinman's testimony does not provide further evidence of Mr. Turner's knowledge regarding the accepted practice of using a 3/4 inch glass bottom. Rather, Mr. Steinman's opinions support the notion that using a 3/4 inch glass bottom is common industry practice, which is, indeed, expert opinion.

Because Mr. Turner's testimony falls under 702, the court must now determine whether his testimony should be barred under Rule 37(c)(1). Rule 37(c)(1) requires the court to determine whether there is a "substantial justification" for failure to comply with discovery rule 26(a)(2)(A) and disclose a witness as an expert, or whether the failure to do so was "harmless." FED.R.CIV.P. 37(c)(1). Defendants argue that any failure to comply with Rule 26(a)(2)(A) was harmless to Plaintiff. They contend that Plaintiff has been aware of Mr. Turner's testimony

regarding the custom and practice in selecting glass for the bottom of the aquaria. Specifically, Defendants maintain that Plaintiff deposed Mr. Turner "at length" regarding the "custom and practice and again in February 2007 on changes in accepted practices." Defs.' Resp. at 2. Additionally, Defendant claims that, through supplemental interrogatories, Plaintiff also sought information relating to Mr. Turner's knowledge of other aquarium manufacturers that use 3/4 inch glass for the bottom of a large tank and of changes to the accepted practices.

Plaintiff, of course, argues the opposite. Plaintiff cites *Musser v. Gentiva Health Servs.*, involving parents who brought a medical malpractice suit against a nursing home, alleging negligent monitoring and attempted resuscitation that led to the death of their infant son. 356 F.3d 751, 757 (7th Cir. 2004). The Court of Appeals upheld the exclusion of expert testimony of the treating physicians and nurses, because the plaintiff failed to identify or disclose any witness as an expert before the deadline established by the court. The Mussers argued that the defendant was "made aware of the identity and records of all of their witnesses, and Gentiva had an opportunity to depose these witnesses as to their opinions." *Id.* The Seventh Circuit found that

> [t]he failure to disclose experts prejudiced Gentiva because there are countermeasures that could have been taken that are not applicable to fact witnesses, such

> as attempting to disqualify the expert testimony, retaining rebuttal experts, and holding additional depositions to retrieve the information not available because of the absence of a report."

Id. at 757-58. Moreover, the court further noted that "[d]isclosing a person as a witness and disclosing a person as an expert witness are two distinct acts. Obviously, opposing counsel will question a witness differently ... if the witness has been designated as an expert, and [counsel] is also provided the opportunity to challenge the expert's qualifications." *Id.* at 758. The court found that "even treating physicians and treating nurses must be designated as experts if they are to provide expert testimony." *Id.*

This Court finds that Mr. Turner's proposed testimony is expert testimony and that Defendants failed to disclose this to Plaintiff, as mandated by Rule 26(a)(2)(A). Although Defendants claim that Plaintiff deposed Mr. Turner at length regarding customs and practices, as the Seventh Circuit has held, that is not enough. The Federal Rules of Civil Procedure requires parties to disclose the identity of persons who, at trial, may present evidence under Rule 702. Here, Defendants failed to comply with Rule 26(a)(2)(A), and attempting to disguise Mr. Turner as a lay witness does not remedy their noncompliance. Thus, Mr. Turner is barred from offering expert opinions on the industry or general standards or practices of building glass

aquaria.

It should be noted that Mr. Turner is still permitted to testify as a lay witness. Under Federal Rule of Evidence 701, a lay person may offer opinion testimony providing the witness testifies to what he or she has perceived firsthand. *Harms*, 155 F.Supp.2d at 904 (citation omitted). Moreover, "Rule 701 requires that a lay opinion have a reasonable basis grounded either in *experience or specialized knowledge* for arriving at the opinion that he or she expresses." *Id* (quoting ***Asplundh Mfg. Div. v. Benton Harbor Eng'g***, 57 F.3d 1190, 1201 (3d Cir. 1995). Here, however, "specialized knowledge" refers to knowledge gained from one's own personal experience, but the standard does not authorize the proclamation of general standards. *Harms*, 155 F.Supp.2d at 904.

In the present case, Plaintiff does not challenge the qualifications of Mr. Turner. In addition, given his many years of experience in the glass aquaria industry, he does have the sort of experience or specialized knowledge which would allow him to offer lay opinions under Rule 701. *See Harms*, 155 F.Supp.2d at 904 (allowing laboratory operations manager to offer lay opinion testimony on what he witnessed firsthand, such as the standards of care utilized by the defendant in conducting testing on the plaintiff and other clients). Thus, Mr. Turner may offer opinion testimony on what he witnessed firsthand, such as the

practices utilized by Defendants during the construction and subsequent failure of Plaintiff's 2,800 gallon aquarium and his experience constructing or helping to construct other aquariums. Accordingly, this Court denies Plaintiff's motion to the extent that it seeks to bar any lay opinion testimony from Mr. Turner's firsthand knowledge of Defendants' practices.

II. Defendants' Motions in Limine

A. Motion in limine #1

Defendants have moved in limine to exclude the opinions and testimony of James Hauck ("Mr. Hauck"), a structural engineer, hired by Plaintiff and third-party defendants, D&D. Defendants contend that Mr. Hauck's testimony does not pass muster under the principles of Federal Rules of Evidence 702 and 703. Specifically, Defendants argue that Mr. Hauck was hired to provide his opinion as to what caused the aquarium to fail, and not to judge its design. According to Defendants, Mr. Hauck never makes the causal link necessary to come to his conclusion that the aquarium failed due to its inadequate design, which ultimately renders his opinion inadmissable. Defendants note that Mr. Hauck admits that the maximum allowable stress set forth by the ASTM, is not synonymous with the stress at which the glass will break. According to Mr. Hauck, he is not able to determine the fracture toughness, and would have to defer to a material scientist for that information. Defendants, therefore, contend

that Mr. Hauck is unable to conclude that exceeding the maximum allowable stress caused the bottom panel to fail. Defendants further argue that it is improper to apply ASTM standards to aquariums; therefore, Mr. Hauck's opinion is unreliable. Defendants also accuse Mr. Hauck of failing to look at other sources besides the ASTM standards to determine the strength of glass and performing only a few "impractical and unrealistic calculations" in his analysis of what caused the failure of the aquarium. Defendants also contend that Mr. Hauck failed to consider the obvious cause of the failure of the tank: D&D's previous work. Defendants further argue that Mr. Hauck's analysis of the activities that took place while D&D was in the tank were unreasonable, because Mr. Hauck failed to consider the known activities by D&D, such as, the workers using a stepladder to get in and out of the tank or four men working in the tank at one time. According to Defendants, failing to consider these and other activities that were admitted by the workers, renders Mr. Hauck's analysis fatally flawed.

Plaintiff argues the opposite and claims that Mr. Hauck considered and rejected the possibility that some of D&D's known, and unknown, activities in the aquarium could have caused the bottom panel to fail. Plaintiff further contends that Mr. Hauck explained that he could rely on the ASTM standard, despite the exclusory language in paragraph 1.2, because that exclusion was

in reference to the practice of designing glass in buildings and that the appendices to the Standard are there to allow engineers to design glass under various loading conditions. Hence, Plaintiff counters that Mr. Hauck's opinions are reliable and meet the standards of Rules 702 and 703.

Although Defendants do point out that Mr. Hauck's "educational background is limited to a Bachelor of Science in Architecture, and a Bachelor of Science in Civil Engineering," they do not challenge his qualifications as an expert in structural engineering. With that said, the Court appropriately turns to Mr. Hauck's actual testimony.

Mr. Hauck offers his opinion as to what caused the aquarium to fail. This of course, is at the core of the present litigation. The Court will now consider Mr. Hauck's methodology underlying his opinions to determine whether his proposed testimony complies with the standards of Rule 702 and 703 and those announced in *Daubert* and its progeny.

Beginning with Defendants first argument, Plaintiff offers an explanation as to why Mr. Hauck can reasonably rely on the ASTM Standard and offers the causal link that Defendants claim is missing from Mr. Hauck's analysis. In his May 15, 2007 report, Mr. Hauck, an expert in structural engineering, named the ASTM E 1300 Standard as the "recognized industry standard for the design of glass in the United States." Hauck Rep. at 2. Additionally,

in this third report, Mr. Hauck explains that the most common engineering use of glass is building window; therefore, the ASTM Standard was written to accommodate this use. However, Mr. Hauck maintains that this does not prevent its application to other circumstances. In support of his opinion, Mr. Hauck cites to a publication of a glass manufacturer, Pilkington (which, according to Mr. Hauck, is one of the world's largest manufacturers of glass), that recommends referring to the ASTM when considering glass capacity under specified loads. *Id.* Additionally, according to Plaintiff, Appendix X9 of the Standard "mandates that the 'maximum edge stress [i.e., the stress that actually will be placed on the glass] ***must*** be less than the maximum allowable stress'." Plaintiff Gregory Sachs' Memorandum in Opposition to Motion to Strike and Preclude the Testimony and Opinions of James Hauck at 4. Hence, the Court finds Defendant's argument unpersuasive.

The Court also finds Defendants' second argument unconvincing. Defendant argues that Mr. Hauck's opinions are unreliable because he failed to look at sources other than the ASTM. Moreover, Defendants seek to exclude Mr. Hauck's testimony because he did not consider the known activity by D&D; however, Plaintiff argues that this is not the case. Rather, Plaintiff maintains that Mr. Hauck did consider them, but ruled them out. Defendants' motion amounts to nothing more than a difference of

opinion and does not render Mr. Hauck's testimony unreliable. Cross examination is the appropriate method for attacking Mr. Hauck's opinions. *Smith*, 215 F.3d at 719. Therefore, after reviewing the testimony of Plaintiff's expert Mr. Hauck, the Court finds that it meets the requirements of Rule 702 and 703.

B. Motion in limine #2

In their second motion in limine, Defendants petition this Court to exclude the testimony and opinions of Ronald Huet ("Mr. Huet") and Denis McCann ("Mr. McCann"), two experts hired by Chubb National Insurance Company ("Chubb") (Plaintiff's insurance company).[3] Defendants do not challenge the qualifications of these witnesses, rather they allege that Messrs. Huet and McCann's opinions are based on incomplete and inaccurate facts and faulty assumptions. The Court is not persuaded by Defendants' motion; and therefore, their motion is denied.

Defendants main argument can be broken into two parts. First, they maintain that Messrs. Huet and McCann's report relies only on their own visual observations and only considers the testimony of Joe Auster, Sach's employee. Specifically, Defendants argue that Messrs. Huet and McCann's opinions are

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[3] It should be noted that Messrs. Huet and McCann consolidated their opinions to form one report. In their motion, Defendants also challenge their opinions in one motion; therefore, the Court also will consider the opinions of Messrs. Huet and McCann together.

unreliable, because their report was written before the depositions of witnesses; therefore, their conclusions do not consider the factual data subsequently revealed. Secondly, Defendant argues that the calculations of Plaintiff's experts, rest on the assumption that the initial crack on the bottom panel, took 4-5 months to grow. The Defendants maintain that this is precisely what Plaintiff's need to prove; hence, Messrs. Huet and McCann's testimonies are unreliable and should be excluded.

Plaintiff defends that Messrs. Huet and McCann's opinion is sufficiently supported and Defendants' characterization of the data underlying their opinions is false. Plaintiff argues that both Mr. Huet and Mr. McCann reviewed many documents, including CAD drawings of the aquarium, photographs taken following the leakage, Klein and Hoffman's engineering report, the contract between Plaintiff and RAD, and D&D's January 25, 2005 report, in addition to relying on their own visual observations and the testimony of Joe Auster. In addition, Plaintiff contends that Mr. Huet consulted peer-reviewed articles relating to the prediction of stresses on fractured glass.

Plaintiff also counters by explaining that Mr. McCann's analysis remains sound without considering four people in the aquarium at a time, because Mr. McCann found that more than two people could not apply a load directly around the rim of the hole

of origin at one time, without standing on top of one another. Plaintiff also argues that knowing the SIF was not helpful here. This is because calculating the SIF and crack growth rate allows one to determine when a crack will reach its critical size and time of failure, and since failure had already occurred, it would have provided no useful information. Plaintiff, Chubb National Insurance Company's Memorandum in Opposition to Defendants' Motion to Strike and Preclude the Testimony and Opinions of Ronald Huet and Dennis McCann at 13.

Essentially, what Defendants have presented here are potential weaknesses in Messrs. Huet and McCann's conclusions, and not a showing of a baseless methodology. Messrs. Huet and McCann never admit that any of the testimony that Defendants accuse them of failing to consider would have made any difference in their conclusions. *See Frost v. Teco Barge Line*, No. 04 C 752, 2007 WL 518634, at *5 (S.D.Ill. Feb. 15, 2007) (Court excluded testimony where Plaintiff's doctor admitted that, now that he was aware that Plaintiff suffered from back pain from a previous injury, he would have to re-evaluate his opinion regarding the source of Plaintiff's injury). Rather, they provide reasons and explanations as to why these would not have made a difference in reaching their opinions.

It is not this Court's role as gatekeeper to make factual determinations, for that would be the end of the adversary system

as we know it. *Bullock*, 2007 WL 2461657, at *1. These questions are to be presented to the finder of fact and left for their determination. Consequently, the contents of Defendants' motion should be left for cross examination of these witnesses.

CONCLUSION

For the reasons set forth above, IT IS HEREBY ORDERED that Plaintiff's motion to exclude the opinions and testimony of Defendants' experts Harry R. Allen [115] and Dr. Sheldon Mostovoy [118] are denied. IT IS ALSO ORDERED that Plaintiff's motion to exclude the opinions and testimony of Jeffrey A. Turner [121] is granted only to the extent that it includes expert opinions, as describe above. IT IS FURTHER ORDERED that Defendants' motions to exclude the testimony of James Hauck [133] and Ronald Huet and Dennis McCann [134] are denied.

DATE: October 25, 2007 E N T E R E D:

Orlando Keys

MAGISTRATE JUDGE ARLANDER KEYS
UNITED STATES DISTRICT COURT